GALAKTIONOV, P.A., kand. tekhn. nauk; DRIBIN, L.F.

Investigating technological processes and solutions of simultaneous jet degreasing and pickling. Trakt. i sel'khozmash. no.4:41-45 Ap '59.   (MIRA 12:5)

1.Nauchno-issledovatel'skiy institut Traktorosel'khozmash.
        (Metals--Finishing) (Metals--Pickling)

GONCHARIK, M.N. [Hancharyk, M.N.]; GALAKTIONOV, S.G. [Halaktsiionau, S.H.]

Changes in the water economy of potatoes under the influence of chlorophos. Vestsi AN BSSR. Ser. biial. nav. no.4:60-62 '62.
(MIRA 17:8)

GALAKTIONOV, S.G. [Halaktsienau, S.H.]

Nature of the effect of chlorides on potato plants. Vestsi
AN BSSR Ser. biial. nav. no.1:38-41'63.   (MIRA 16:9)
            (PLANTS, EFFECTIVE CHLORIDES ON)   (POTATOES)

ACC NR: AP6026472   SOURCE CODE: UR/0423/66/000/004/0017/0019

AUTHOR: Kandilov, G. K.; Galaktionov, S. P.

ORG: Baku Electric Machine Building Plant (Bakinskiy elektromashinostroitel'nyy zavod)

TITLE: Use of fiberglass micanite tape as a substitute for micaceous tape in the chassis insulation of high-voltage electric motors

SOURCE: Za tekhnicheskiy progress, no. 4, 1966, 17-19

TOPIC TAGS: mica, electric motor, insulating material, electric insulation, fiberglass, epoxy plastic

ABSTRACT: The authors note that for a wide variety of reasons (excessively high costs, short supply of material, manufacturing difficulties and high percentage of manually performed production operations, and nonuniformity of finished output), the micaceous (pinched) insulation presently used in high-voltage electric motors cannot be regarded as a satisfactory solution to this technological problem. The present paper discusses new micanite insulation tape materials developed at the Electrical Engineering Institute im. V. I. Lenin (Elektrotekhnicheskiy institut). The new materials, produced from unused mica tailings, cost 1/3 to 1/4 the price of conventional mica insulation and have been found to be superior to the latter in a number of parameters. The lack of technological experience has thus far impeded industrial utilization.
    UDC: 621.313.333:621.3.027.3:621.315.61

Card 1/2

ACC NR: AP6026472

zation of the new micanite materials. The development of a production process for
fiberglass micanite insulation tape with an epoxy-poly ester lac and adhesive compound
covering layer is described. This insulation, production of which has been begun at
the "Elektroslyudinit" Plant (zavod "Elektroslyudinit"), is to be employed as a total
substitute for micaceous insulation for 6000-volt stator windings. The many tech-
nological and economic advantages of the new materials are briefly discussed. Further
research for improved characteristics is recommended. Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

SOV/32-25-1-41/51

14(11), 15
AUTHORS: Shelyubskiy, V. I., Galaktionov, S. S., Kukarkin, G. A.

TITLE: Machine for Testing the Bending, and Determining the Young Modulus of Glass (Pribor dlya ispytaniya na izgib i opredeleniya modulya Yunga stekla)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 1, pp 114-116 (USSR)

ABSTRACT: The limit of the bending strength and the Young modulus of glass are usually tested on metal testing machines (Ref 1) or on simple laboratory apparatus (Ref 2). No equal increase in stress can be adjusted there, which fact decreases the measuring accuracy, as the strength of glass considerably depends on the rate of the increase in stress (Ref 3). An apparatus was con- structed which records automatically the magnitude of the de- struction stress and makes possible a determination of the maximum deformation. The operation principle of the apparatus (Fig) is that a motor (by way of a worm screw) on a lever of a supporting girder displaces the stress while the other arm exerts a certain pressure upon the sample from below; thus, the sample is pressed against a support fixed above the sample. The position of this support can be adjusted and the support itself

Card 1/2

SOV/32-25-1-41/51

Machine for Testing the Bending, and Determining the Young Modulus of Glass

is connected with an electric contact which automatically records the stress in the case of the destruction of the sample. The magnitude of the stress is calculated according to the equation (1). The measuring accuracy depends on the production of the sample and is about 2-3%.
There are 1 figure and 4 references, 3 of which are Soviet.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut elektro-vakuumnogo stekla (State Scientific Research Institute of Electro-Vacuum Glass)

Card 2/2

L 26491-66   EWT(m)/EWP(t)/ETI   IJP(c)   JD

ACC NR: AP6013070   SOURCE CODE: UR/0048/66/030/004/0637/0643

AUTHOR: Bundel',A.A.; Vishnyakov,A.V.; Galaktionov,S.S.; Guretskaya,E.I.; Zhukov,G.V.; Kamenskaya,S.A.; Kreytser,K.A.; Oranovskaya,T.V.; Chashchin,V.A.

ORG: None

TITLE: On the effect of the preparation conditions on the formation of traps in ZnS and ZnO base phosphors and the influence of predecomposition phenomena in solid solutions of Cu_2O in ZnS on their luminescence /Report, Fourteenth Conference on Luminescence held in Riga,16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 637-643

TOPIC TAGS: luminescence, crystal phosphor, zinc sulfide, current carrier, luminophor

ABSTRACT: Introduction of new experimental methods has increased rather than reduced the disagreement among different investigators regarding the structure of zinc sulfide luminophors. On the basis of previous investigations of glow curves and the polarity of the photocurrent carriers the authors showed that for the most part the discrepancies are due to inadequate control of the synthesis conditions, i.e., that the phosphors studied by different groups differed as regards structure owing to unintentional variations of the preparation conditions. Experiments show, for example, that truly self-activated ZnS exhibits only one glow curve peak, but that if the compound

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L 26491-66

ACC NR: AP6013070   0

is exposed to oxygen, even at low pressure, during heating a second glow-curve peak appears and this is accompanied by change in the polarity of the photocurrent carriers (from n to p). Various experiments were carried out with pure, self-activated and impurity-activated ZnS and ZnO (including surface oxidized specimens) and several series of glow curves are reproduced. Data on the polarity of the current carriers in photoconductivity are also adduced. The curves and data demonstrate the effects of the synthesis conditions. A series of phosphors was prepared by heating different mixtures of ZnS with Cu_2S without flux at $1000^{\circ}C$, followed by reheating with quartz powder (to prevent caking) in sealed tubes at 1050°. These ZnS:Cu phosphors were studied immediately after preparation, after various heat treatments and after storage for some months at 20°. Their attributes differed considerably, again indicating the importance of synthesis and other conditions. It is pointed out that understanding of the peculiarities of the complicated chemical system constituted by copper-activated zinc sulfide luminophors requires further thorough investigation of the $ZnS-Cu_2S-Cu$ system. Orig. art. has: 1 formula and 6 figures.

SUB CODE: 20/   SUBM DATE: 00/   ORIG REF: 008/   OTH REF: 008

Card 2/2

L 23266-66   EWT(1)/EWA(h)   IJP(c)   AT

ACC NR: AP6007072   UR/0057/66/036/002/0250/0257

AUTHOR: Galaktionov,S,V,; Filimonov,G.F.

ORG: none

TITLE: Influence of backward radiation on the amplification of signals in a weakly modulated one-dimensional electron beam

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 2, 1966, 250-257

TOPIC TAGS: traveling wave amplifier, traveling wave interaction, electron beam, backward wave amplifier,

ABSTRACT: The authors discuss the theory of the traveling wave amplifier with particular reference to the influence of backward traveling waves.   The treatment is based on linearized equations previously given by L.A.Vaynshteyn (Radiotekhnika i elektronika, 2, No. 7, 883, 1957).   It is shown that a backward wave is always present and, although the maximum amplitude of the backward wave is always small compared with that of the forward wave, the presence of the backward wave limits the increase of the useful gain that can be achieved by increasing the length of the electron beam. The saturation of the useful gain (as a function of the beam length) is not due to redistribution of energy between the forward and backward waves; it is suggested that the saturation is due to the fact that useful gain takes place only in the terminal

Card 1/2   UDC: 538.566

L 23266-66

ACC NR: AP6007072

portion of the beam where the amplitude of the backward wave is still small. Results
of numerical calculations are presented graphically and are discussed. The authors
thank V.T.Ocharov for discussions and valuable advice. Orig. art. has: 13 formulas
and 6 figures.

SUB CODE: 09   SUBM DATE: 10May65   ORIG. REF: 006   OTH REF: 000

Card 2/2 ULR

GALAKTIONOV, V.A

632.526

1006. INVESTIGATIONS OF THE HYDRODYNAMICS OF JETS OF
LIQUID EMERGING FROM NOZZLES UNDER A PRESSURE UP TO
1500 ATM. L.F.Vereshchagin, A.A.Semerchan, A.I.Firsov,
V.A.Galaktionov and F.M.Filler.
Zh. Tekh. Fiz., Vol. 28, No. 11, 2570-7 (1958), in Russian.

After reviewing the literature the authors describe an appara-
tus for producing water jets in air. By applying high pressures
velocities of 600 m/sec are attained; this is more than double the
velocity which was reached by previous experimenters. By employ-
ing cinephotography the shape of the jets is observed in greater de-
tail than known before. Apart from other results, it is noted that
perturbations in the jet which arise near the velocity of sound recede
at higher velocities. In this way high speed jets could be produced
which show no tendency of breaking up, in spite of the presence of
standing waves. It is pointed out that jets are appreciably heated up
in nozzles on account of the Joule-Kelvin effect.   R.Finkelnburg

GALAKTIONOV, V.A

Apparatus for the measurement of isothermal compressibility of liquids. L. F. Vereshchagin and V. A. Galaktionov. Pribory i Tekh. Eksperimenta 1957, No. 1, 68-101. The measurement is described of isothermal compressibility of dielec. liquids up to pressures of 5000 atm. in a temp. interval of ±60°. The error of the compressibility coeff. measured is about 4%.

A. Kremlicht

GALAKTIONOV, V. A.

PO 5-20/35

AUTHORS: Vereshchagin, L.F., Semerchan, A.A., and Galaktionov, V.A.

TITLE: The Indicator Diagram of a Super-high Pressure Hydraulic Pump (Indikatornaya diagramma gidravlicheskogo kompressora sverkhvysokogo davleniya)

ABSTRACT: Diagrams from 2 pumps are considered. The K-6 is a laboratory machine with a maximum pressure of 6 000 atm. and flow of 15 litres/hour. It differs from the Gosplan SSSR pump, type ГK-7/6 000 in having duplicate pressure valves. The K-38 is for the compression of water up to about 3 500 atm. at a rate of about 4 tons/hour. A description of a similar model, the K-17, is at the moment in the press (Ref.2). The machines were made in 1943, but have not been tested until now. The pressure transducer is a constantan wire 0.03 mm in dia. and 8 mm long, with an initial resistance of 120 Ω, fixed to the wall of the obturator tube. On an extension of the tube outside the pressure region, a similar wire serves as a temperature compensator. Fig. 1 shows the relative disposition of pickoff, cylinder and pressure valve. Fig. 2 shows the circuit of the measuring apparatus. The transducer and compensator are arms of a bridge. The bridge output is amplified

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120 5 20/35

The Indicator Diagram of a Super-high Pressure Hydraulic Pump.

and fed via a phase-sensitive detector to an electromagnet
oscillograph type MPO-2. The detector and bridge are fed
from an oscillator at 10 kc/s. The circuit forms part of an
instrument ЭТС-25-7 developed by VNII KOP for tensometry.
When used with the K-38, an obturator with an internal dia. of
7 mm increases the "dead" volume of the cylinder by 20%. For
the smaller pump an insert is necessary to reduce the supple-
mentary volume to about 0.005 cm³. A special test established
that the use of such a narrow bore in the pickoff (0.2 mm) did
not reflect on the indicator diagram. On calibration, the
pickoffs were linear up to 3 500 atm. Figs. 4 and 5 show the
means adopted to sample the piston motion in the K-38 and K-6,
respectively. Piston position in K-6 was measured to within
0.1 mm; top-dead-centre was electrically registered in K-38.
Fig. 6 shows part of an oscillogram taken on K-6 when com-
pressing a 1:1 mixture of transformer oil and kerosene into a
vessel of capacity 32 cm³. Fig. 7 refers to K-38 compressing
water into a reservoir with a continuous leak out of a jet. In
this case marked oscillations are to be observed; their origin
has not been established with certainty. Fig. 8 shows the K-6
Card2/4 results re-plotted in the form of a conventional indicator

The Indicator Diagram of a Super-high Pressure Hydraulic Pump.

diagram. Also superposed are the calculated curves for iso-
thermal and polytropic operation at ... 200 atm. obtained by
collaboration with V.V. Popov and V.V. Zichan. The measurement
of the fundamental data is described in Ref. 5. The following
comments may be made on Fig.5. 1) the pressure necessary to
open the pressure valve is some 200 - 300 atm. greater than
the pressure on the other side of the valve. This is explained
by the variations in density and viscosity affecting the
tightness of fit of the pressure valve. The effect is greatest
at around 2 000 atm. maximum pressure. 2) At the highest
pressure, near top-dead-centre, the ascending and descending
portions of the diagram coincide. This is because when the
fluid is very viscous, the valve does not open instantaneously
but does so while the piston is within top part of its travel,
thus wasting some of its action. 3) The diagrams do not begin
at bottom-dead-centre, but some time after. This is due to
incomplete filling of the cylinder with fluid even at such high
pressures as 90 atm. 4) The experimental and theoretical
curves do not agree very well. This is explained by the fact
that the pump took 0.12 sec. to perform a cycle while the
piezometer from which the fundamental laws were derived took

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The Indicator Diagram of a Super-high Pressure Hydraulic Pump.

120 9-20/35

18 sec. The calculation also neglected the effects of deformation of the cylinder and valve leakage. The K-33 results plotted as indicator diagrams in Fig. 10 appear much steeper because of the lower compressibility of water. The 3 000 atm. diagram starts soon after bottom dead center but the 1 500 atm. diagram is delayed for almost half the stroke. During this time, the piston is compressing water again. Figs. 11 and 12 show the different behaviour of the two pumps. It is partly explained by the fact that the water pump draws at 10 atm. while the oil pump draws at 90 atm. The relative accuracy of the individual diagrams in a family of curves is considered to be higher than in other methods. As far as absolute accuracy is concerned, the pressure axis is estimated to be within 10% at 3 000 atm. and the volume axis about 2%. There are 12 figures and 3 Slavic references.

ASSOCIATION: Super-high Pressure Physics Laboratory Ac.Sc. USSR.
               (Laboratoriya fiziki sverkhvysokikh davleniy AN SSSR)

SUBMITTED: March 8, 1957.

AVAILABLE: Library of Congress
Card 4/4

Galaktionov, V. A.

AUTHORS: Vereshchagin, L. F., Semerchan, A. A., Filler, F. M.,   57-11-26/33
              Gulaktionov, V. A.,

TITLE: The Role of the Receiver at the Flow of a Water Flux at Superso-
              nic Velocity (Znacheniye resivera pri istechenii vodyanoy strui
              sverkhzvukovoy skorosti)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 11, pp. 2640-2646, (USSR)

ABSTRACT: Here a theoretical computation of the dependence of the pressure-
              pulsation-smoothing degree in the receiver on the capacity of at
              pressure production in this receiver by means of a hydraulic ultra-
              high-pressure compressor was carried out. The influence of the re-
              ceiver-capacity (contents) on the pressure-pulsation-smoothing de-
              gree in the receiver is investigated by experiment. The results of
              the computation were compared with those of the experiment with re-
              gard to the pressure-pulsation-smoothing degree of the water in
              the receiver and it was ascertained that the theoretical computa-
              tion in spite of a number of simplifying assumptions shows a satis-
              fying conformity with the data of the experiments. On account of the
              results of the experiments the water jet, which flows out of a 5-6
              liter receiver at supersonic velocity, may be looked upon as well
              smoothed with regard to the impulse-pressures and consequently also
              with regard to the impulse-velocities. There are 5 figures, 2 tab-
              les and 3 Slavic references.

Card 1/2 *Lab for Physics of Ultra High Pressures AS USSR*

87374
S/120/60/000/004/013/028
E073/E435

1.5210

AUTHORS: Vereshchagin, L.F., Galaktionov, V.A. and Popov, V.V.

TITLE: On a Tetrahedral Holl Press for Producing Pressures up
              to 0.1 M atm at Temperatures up to 200°C

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No.4, pp.106-109

TEXT: The possibility of obtaining very high pressures is of
considerable interest from the point of view of producing new
materials (synthetic diamonds and borazon) and also from the point
of view of geophysical and geochemical investigations.   It is
anticipated that in the near future, metallurgical investigations
will be made at very high pressures and temperatures since the
effect of pressure on the displacement of the equilibrium curves
of the diagram of state may be considerable.   H.T.Holl (Rev.
Scient. Instrum., 1958, 29, No.4, 267 - Ref.1) devised an
interesting tetrahedral press in which the pressure is transmitted
to the specimen by means of a plastic solid body without
additionally introducing an element in the liquid phase.   The size
of the pressure chamber is also larger than that of the design
developed by Bridgman.   The authors were interested in
investigating the possibility of obtaining high pressures by this
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On a Tetrahedral Holl Press for Producing Pressures up to
0.1 M atm at Temperatures up to 200°C

method and also the obstacles involved in increasing further the
pressure and the temperature in equipment of this type. For this
purpose, an equipment consisting of four hydraulic presses
arranged in the apices of a tetrahedron was designed and tested.
The pistons with end pieces, as shown in Fig.1, compress a plastic
solid body in the form of a tetrahedron with sides of about 10 mm.
The photograph (Fig.1) shows tups (a) which, if suitably arranged,
effect the compression of the plastic solid body in the form of a
tetrahedron. The same figure shows a tetrahedron from
pyrophyllite in various stages of preparation of the container ((b)-
initial tetrahedron during fitting of the container; (B) - container
substance under investigation which serves simultaneously as the
heating element). The container is intended for housing the
material to be investigated and also serves as a low-resistance
electric heating element. The electrical circuit for heating the
container consists of tups which are insulated from the body and a
container in the form of a metallic tube with covers. Metallic

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S/120/60/000/004/013/028
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On a Tetrahedral Holl Press for Producing Pressures up to
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strips are welded to the covers which pass from the pyrophyllite
tetrahedron along its edges and are in contact with the tups. The
high current density for a voltage of a few V is obtained by using
two-stage stepdown transformers. The temperature is evaluated from
the fusion points of certain metals that are placed into the high-
pressure zone. Fig.2 shows a photograph of the apparatus. The
force coupling between the hydraulic cylinders can have various
forms. In the given case, the cylinders are linked by columns
which are in tension when the specimen is in compression. The
large diameter of the columns is due to the desirability of
reducing the stresses in order to eliminate any changes in the
direction of the axes of the cylinders during the process of
compression. To ensure initial convergence of the cylinder axes
strictly in the centre of the tetrahedron, the length of the
columns 1 can be varied by means of regulating nuts 2, located
on both sides of the flanges 3, on which the cylinders 4 of the
hydraulic presses are fixed. To observe the deviation from the

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On a Tetrahedral Holl Press for Producing Pressures up to
0.1 M atm at Temperatures up to 200°C

correct position of the axes of the cylinder, the tups are
substituted during the calibration by rods with sharp tips.   The
ends of the rods should converge into one point and the angles
between the rods should be equal.   In spite of the very careful
initial adjustment of the cylinders and of the tups, there were
short-circuits in the heating circuit, indicating that at large
pressures (exceeding 50000 atm) the position of the tups differs
from the initial one.   Strain-gauge measurements showed that the
tensile stresses in the individual columns may differ very
greatly (by a factor of up to 2) and this is attributed to
disturbances in the symmetry of the compression of the
pyrophyllite tetrahedron.   To localize the moments arising in the
case of nonsymmetric loading in the press the tups can be prevented
from shifting by using pull rods, which apparently has been done in
the design of Holl.   It was established that inside the
pyrophyllite tetrahedron the pressure increases linearly with
increasing forces in the hydraulic cylinders until such time as the

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S/120/60/000/004/013/0??
E073/E435

On a Tetrahedral Holl Press for Producing Pressures up to
0.1 M atm at Temperatures up to 200°C

thickness of the pyrophyllite film at the side faces of the tups is
reduced to hundredths and thousandths of a mm.   After that,
a further increase in the force of the hydraulic presses does not
result in an increase of the pressure of the specimen since the tups
transmit the pressure to each other without compressing the
pyrophyllite in the centre.   The pressure which could be recorded
in an equipment of such a type was 70000 to 80000 atm.   It was
established that the principle of Holl is correct.   However, its
practical realization leads to numerous difficulties which are
analysed in this paper.   There are 3 figures and 3 references:
1 Soviet and 2 non-Soviet.

ASSOCIATION: Institut fiziki vysokikh davleniy AN SSSR
             (Institute of High-Pressure Physics AS USSR)

SUBMITTED: December 15, 1959

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On a Tetrahedral Holl Press for Producing Pressures up to
0.1 M atm at Temperatures up to 200°C

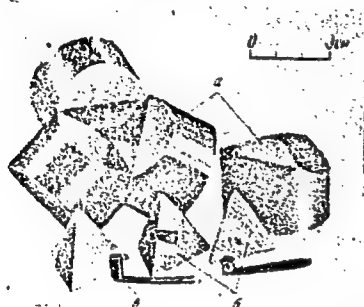
Рис. 1. Наиболее существенные детали
установки. a — наковальни, б — исход-
ный тетраэдр в процессе монтажа кон-
тейнера, в — контейнер для исследуе-
мого вещества; он же — электронагрева-
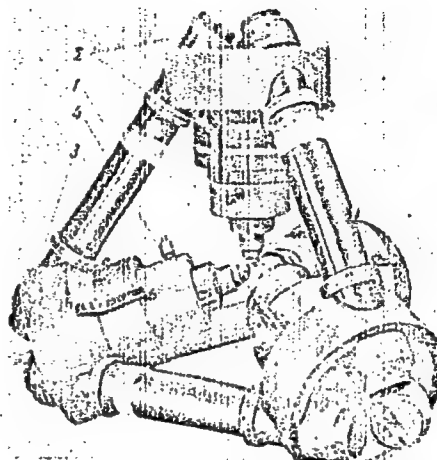тельный элемент

Fig.1.

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Рис. 2. Общий вид тетраэдрического процесса.
1 — колонны,   2 — регулировочные гайки,
3 — фланцы, 4 — гидравлические прессы

S/020/60/132/05/24/069
B014/B125

AUTHORS: Vereshchagin, L. F., Galaktionov, V. A., Semerchan, A. A.,
             Slesarev, V. N.

TITLE: A High-pressure and High-temperature Apparatus With
             Conic Dies

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 5,
             pp. 1059 - 1061

TEXT: The diagram of the apparatus described here is shown in Fig. 1.
The two conically pointed dies produce the high pressure in the cylin-
drical working area of a matrix. The matrix is pressed into protective
rings to prevent its deformation. Fig. 2 gives a total view; Fig. 3
shows the matrix with the dies. The working area has a final diameter
of 11 mm and a height of 25 mm. The dependence of the temperature in
the middle of the working area on the output of the heater is graphi-
cally represented in Fig. 4. Studies at pressures of 60-70,000 kg/cm^2
are being carried out on the apparatus at present, at which tempera-

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A High-pressure and High-temperature Apparatus   S/020/60/132/05/24/069
With Conic Dies   B014/B125

tures up to 2000°C are reached. By means of this apparatus it could be
determined that Armco iron which was melted at a pressure of 70,000 atm
and exposed at 2000°C was unusually hard after slow cooling. This ef-
fect must be more closely investigated. There are 4 figures and 3 ref-
erences: 1 Soviet and 2 American.

ASSOCIATION: Institut fiziki vysokikh davleniy Akademii nauk SSSR
              (Institute for High Pressure Physics of the Academy
              of Sciences of the USSR)

PRESENTED: March 11, 1960, by G. V. Kurdyumov, Academician

SUBMITTED: March 1, 1960

Card 2/2

GALAKTIONOV, V.A.

Induction heating of die-casting molds. Prom. energ. 16
no.4:4-6 Ap '61.   (MIRA 14:9)
          (Induction heating)   (Die casting)

S/030/62/000/007/004/004
I007/I207.

AUTHOR: Galaktionov, V.A. Candidate for Technical Sciences

TITLE: High-pressure research apparatus

PERIODICAL: Akademiya nauk SSR. Vestnik. no. 7, 1962, 73-76

TEXT: This is a brief review on recent results obtained
both in the USSR and abroad, in the design and construction of
new high-pressure equipment. For pressures up to 1000 kg/cm^2,
Soviet industry produces in series the НЖР (NzhR) type pump.
For pressures ranging from 12000 to 15000 kg/cm^2, the Soviet
scientist L.F. Vereshchagin developed a continuous-operating
hydrocompressor. The works of foreign scientists, P.V. Bridgeman,

Card 1/2

High-pressure research...

S/030/6?/000/007/004/004
I007/I207

E. Lloyd, England, and F.R. Boyd, on high-pressure research and
equipment are described, and the design of a new appartus for
pressures up to 170,000 kg/cm^2, developed by Vereshchagin is out-
lined. With this appratus, Vareshchagin and co-workers developed
a new structural modification of SiO_2, Sermed Stipoverit, charac-
terized by a much higher density than the natural mineral. There
are 2 figures.

Card 2/2

GALAKTYCNOV, V. A.

Forests and Forestry - Study and Teaching

Conference of the forestry department of Tomsk University. Les. khoz. 5, No. 7, 1952.

GALAKTIONOV, V. D.

Kanal Volga-Don. ⌐The Volga-Don Canal¬. Moskva, Vodnyi transport, 1939.
54 p. illus., maps.   DLC: HE466.V6G3

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,
     Reference Department, Washington, 1952, Unclassified.

AKHUTIN, A.N., doktor tekhnicheskikh nauk, professor, inshener-polkovnik;
    KADER, Ya.M., redaktor; GALAKTINOV, V.D., redaktor; KALACHEV, S.G.,
    tekhnicheskiy redaktor.

[Transformation of the rivers of the U.S.S.R.] Preobrazovanie rek
SSSR. Moskva, Voennoe izd-vo, Voennogo Ministerstva Soiuza SSR,
1950. 88 p. [Microfilm]   (MLRA 8:1)
        (Rivers)

GALAKTIONOV, V. F.

"Volga-Don Canal", a pamphlet in the German language prepared by V. B. Galaktionov, Chief Geologist on the canal, printed in Moscow, 1953.

Contains a pictorial account of information relevant to the canal construction, the equipment used in the construction, the type ships using the canal, the power station of Zimlyanskaya, the lock system used on the canal, and the operation thereof. A fully automatic concrete factory is mentioned, a turbo generator manufactured for the power plant in the Elektrosila plant in Leningrad and a group of Leningrad scientists experimenting in a Leningrad factory in the laboratory for high voltage current technique for long distance lines.

~~LXVII~~   R-1199-54, 23 Apr. 54

GALAKTIONOV, V. D.

Volgo-Donskoi kanal. / The Volga-Don Canal. (Sovetskii Soiuz, 1951, no. 2 (12) p. 5-8, illus., map).

To be put in operation in spring of 1952. The same article is also given in the English edition of the periodical.   DLC: Slavic unclass.

SO: Soviet Transportation and Communications, A Bibliography. Library of Congress, Reference Department, Washington, 1952. Unclassified.

GALAKTINOV, Vasiliy Dmitriyevich.

[Route to the ocean; the Lenin Volga-Don Navigation Canal]
Doroga na okean; o Volgo-Donskom sudokhodnom kanale imeni
V.I.Lenina.   Molodaia gvardiia, 1952. 78 p. [Microfilm]
(Volga-Don Canal)   (MLRA 7:11)

Galaktionov, V.D.

GALAKTIONOV, VASILIY DMITRIYEVICH.

The V. I. Lenin Volga-Don Shipping Canal. Moscow, Foreign Languages Publishing House., 1953.
    37 p. illus.

.423N/5
756.122
.G1

GALAKTIONOV, V.D., kandidat geologo-mineralogicheskikh nauk.

From the Northern Donets River to the Donets Basin. Nauka i
zhizn' 22 no.1:4-6 Ja '55.   (MLRA 8:2)
        (Donets Basin—Canals)

GALAKTIONOV,V.D., kandidat geologo-mineralogicheskikh nauk

On the Volga, at Stalingrad. Nauka i zhizn' 22 no.7:4-6 Jl '55.
(MLRA 8:9)
(Stalingrad Hydroelectric Power Station)

GALAKTIONOV, V. D.

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BEREZIN, V.D.; BIRYUKOV, I.K.;
BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVOY, G.A.; BULEV, M.Z.; BURAKOV,
N.A.; VERTSAYZER, B.A.; VOVK, G.M.; VORMAN, B.A.; VOSHCHININ, A.P.;
GALAKTIONOV, V.D., kand. tekhn. nauk; GENKIN, Ye.M.; GIL'DENBLAT,
Ya.D., kand. tekhn. nauk; GINZBURG, M.M.; GLEBOV, P.S.; GODES, E.G.;
GORBACHEV, V.N.; GRZHIB, B.V.; GREKULOV, L.F., kand. s.-kh. nauk;
GRODZENSKAYA, I.Ya.; DANILOV, A.G.; DMITRIYEV, I.G.; DMITRIYENKO,
Yu.D.; DOBROKHOTOV, D.D.; DUBININ, L.G.; ZIMASKOV, S.V.; ZUBRIK, K.M.;
A.P.; ZENKEVICH, D.K.; ZIMAREV, Ye.V.; ZIMASKOV, S.V.; KOMAREVSKIY, V.T.;
KARANOV, I.F.; KNYAZEV, S.N.; KOLEGAYEV, N.M.; KOMAREVSKIY, V.T.;
KOSENKO, V.P.; KORENISTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;
KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGAR'KOV, N.I.; LGALOV, V.G.;
LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKEVICH, K.F.; MEL'NICHENKO,
K.I.; MENDELEVICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk;
MUSIYEVA, R.N.; NATANSON, A.V.; NIKITIN, M.V.; OVES, I.S.;
OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PETROV, V.I.; PERYSHKIN,
G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; REMEZOV, N.P.;
ROZANOV, M.P., kand. biol. nauk; ROCHEGOV, A.G.; RUBINCHIK, A.M.;
RYBCHEVSKIY, V.S.; SADCHIKOV, A.V.; SEMENTSOV, V.A.; SIDENKO, P.M.;
SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY,
Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA,
Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;
TSISHEVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHEV, A.A.; CHUSOVITIN,
N.A.; SHESTOPAL, A.O.; SHEKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,
I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,
(Continued on next card)

ANDON'YEV, V.L.... (continued)   Card 2.
    Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV,
    Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUNER,
    P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent,
    red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.;
    GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F.,
    retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I.,
    kand. tekhn. nauk, retsenzent, red.; KARAULOV, B.F., retsenzent,
    red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN,
    V.V., retsenzent, red.; LUKIN, V.V., retsenzent, red.; LUSKIN, Z.D.,
    retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV,
    D.M., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent,
    red.; OBRAZKOV, S.S., retsenzent, red.; PETRASHEN', P.N., retsenzent,
    red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent,
    red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASENKOV, N.G., retsen-
    zent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V.,
    prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.R., retsen-
    zent, red.; FEDOROV, Ye.M., retsenzent, red.; SHEVYAKOV, M.N.,
    retsenzent, red.; SHMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya.
    [deceased], akademik, glavnyy red.; RUSSO, G.A., kand. tekhn. nauk,
    red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.;
    ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.;
    LIKHACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.;
    MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN,
    N.V., red.; SOBOLEV, V.P., red.; FERINGER, B.P., red.; FREYGOFER,
                            (Continued on next card)

ANDON'YEV, V.L.... (continued)   Card 3.
Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,
tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHEROVSKIY, N.V., tekhn.
red.

[Volga-Don; technical account of the construction of the V.I. Lenin
Volga-Don Navigation Canal, the TSimlyansk Hydroelectric Center,
and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-
stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSim-
lianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v piati
tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural
descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk.
Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of con-
struction. Specialized operations in hydraulic engineering] Orga-
nizatsiia stroitel'stva. Spetsial'nye gidrotekhnicheskie raboty.
                                (Continued on next card)

ANDON'YEV, V.L.... (continued)   Card 4.
    Glav. red. S.IA. Zhuk. Red. toma I.N. Kostrov. 1958. 319 p.
                              (MIRA 11:9)

1. Russia (1923-   · U.S.S.R.) Ministerstvo elektrostantsii. Byuro tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-korrespondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin, Razin).
           (Volga Don Canal—Hydraulic engineering)

KOGAN, Yakov L'vovich, kand.geol.-mineral.nauk; GALAKTIONOV, V.D., kand.geol.-mineral.nauk, nauchnyy red.; MAR'YANSKIY, Ye.S., inzh., retsenzent; DUNDUKOV, M.D., inzh., retsenzent; LOVETSKIY, Ye.S., inzh, retsenzent; DVORKIN, L.M., tekhn.red.

[Unit for performing shear tests on soils] Ustanovka dlia ispytanii gruntov na sdvig. Moskva, 1959. 29 p. (Moscow. Vsesoiuznyi proektno-izyskatel'skii i nauchno-issledovatel'skii institut "Gidroproekt" imeni S.IA.Zhuk. Tekhnicheskoe soobshchenie, no.6).   (MIRA 13:12)
          (Soil mechanics)   (Testing-machines)

FEDOROV, L.T., kand.tekhn.nauk; LEONT'YEVSKIY, B.B.; GIL'DENBLAT, Ya.D., kand.tekhn.nauk; KORENISTOV, D.V.; ROSSINSKIY, K.I., kand.tekhn. nauk; KUZ'MIN, I.A., kand.tekhn.nauk; KONDRATSKAYA, A.A., inzh.; NISAR-MUKHAMEDOVA, G.N., inzh.; PANOVA, G.M., inzh.; ROZHDESTVENSKIY, G.L., inzh.; SEMIKOLENOV, A.S., inzh.; TSAREVSKIY, S.V., inzh.; ZHUKOVA, M.F., inzh.; GRISHIN, M.M., retsenzent; KRITSKIY, S.N., doktor tekhn.nauk, red.; MENKEL', M.F., doktor tekhn.nauk, red.; GALAKTIONOV, V.D., kand.geol.-min.nauk, red.; ZAVALISHIN, I.S., inzh., red.; MALYSHEV, N.A., inzh., red.; MIKHAYLOV, A.V., doktor tekhn. nauk, red.; PETROV, G.D., inzh., red.; RAPOPORT, Ya.D., red.; RUSSO, G.A., kand.tekhn.nauk, glavnyy red.; SEVAST'YANOV, V.I., inzh., red.; TITOV, S.V., inzh., red.; TISTROVA, O.N., red.; LARIONOV, G.Ye., tekhn.red.

[Hydrology and water economy of the Volga-Don] Gidrologiia i vodnoe khoziaistvo Volgo-Dona. Pod red. S.N.Kritskogo i M.F.Menkelia. Moskva, Gos.energ.izd-vo, 1960. 146 p.   (MIRA 13:11)

1. Moscow. Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledo-vatel'skiy institut "Gidroproyekt" imeni S.Ya.Zhuk. 2. Deystvitel'-nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin).
(Don River--Water resources development)

GALAXTIONOV, V.D., kand.geol.-miner.nauk

Alluvium as foundation for hydraulic structures. Trudy Gidroproekta
3:7-62   '60.   (MIRA 13:7)

1. Otdel inzhenernoy geologii Vsesoyuznogo proyektno-izyskatel'-
skogo i nauchno-issledovatel'skogo instituta "Gidroproyekt" imeni
S.Ya.Zhuka.
               (Soil mechanics)
               (Alluvium)
               (Hydraulic engineering)

GAIAKTIONOV, V. D.

We improve economic indices. Zhil.-kom.khoz. 10 no.1:
18-20 '60.   (MIRA 13:5)

1. Direktor elektroseti, g.Kurgan.
   (Kurgan--Electric power distribution)

GALAKTIONOV, V., inzh.; SERGEYEV, N., inzh.

New type of dredger for the Amu Darya. Rech. transp. 22 no.2:
29-31 F '63.   (MIRA 16:5)
          (Amu Darya River—Dredging machinery)

L 23411-66   EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/ERP(l)/ETC(m)-6

ACC NR: AP6004141   (N)   SOURCE CODE: UR/0125/66/000/001/0069/0072

AUTHOR: Baran, Ye. S.; Galaktionov, V. I.

ORG: Mosrentgen Plant

TITLE: X-ray apparatus for detecting flaws in welded joints

SOURCE: Avtomaticheskaya svarka, no. 1, 1966, 69-72

TOPIC TAGS: x ray detection, x ray apparatus, flaw detection, steel, aluminum, metallurgic testing machine/ RUP-400-5 x ray flaw detector

ABSTRACT: The authors describe two types of portable industrial x-ray apparatus, the RUP-120-5 and the RUP-200-5 currently manufactured by the Mosrentgen Moscow X-Ray Equipment Plant, as well as their new, improved versions, the RUP-150-10, the RUP-150/300-10 and the RUP-400-5, whose serial production at this plant is scheduled to begin in 1966. Apparatus of this kind is designed for the radioscopic examination of relatively inaccessible areas of weldments and structural elements in shops, hangers, shipyards and on construction sites as well as under field conditions in the presence of an ambient air temperature of from -10 to +35°C and relative humidity of up to 80%. The various designs of this apparatus generally have in common the following parts: 1. X-ray and transformer unit represented by an oil-filled tank containing a

Card 1/2   UDC: 658.58:620.179

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ACC NR: AP6004141   0

x-ray tube, a main (high-voltage) transformer and a filament-current transformer;
2. Portable control panel with low-voltage start controllers and control and meas-
uring instruments; 3. Simplified wheeled supporting frame. Most of the designs are
based on the half-wave valveless rectification principle. The latest design, the
RUP-400-5, contains a 400-kv transformer, has a required power of 4 kva, weighs 600 kg,
and can be used to detect flaws in steel 110 mm thick and aluminum 200 mm thick.
Orig. art. has: 5 figures

SUB CODE: 09, 11, 13, 17/   SUBM DATE: 07Apr65/   ORIG REF: 000/   OTH REF: 000

Card 2/2

Galaktionov, V.I.

USSR/Electricity   FD-1115

Card 1/1   Pub. 41-9/13

Author   : Stckol'nikov, I. S., and Galaktionov, V. I., Moscow

Title   : A study of the characteristics of a long spark. III. Channel stage
               of spark in the "rod -- rod on surface" gap.

Periodical : Izv. AN SSSR. Otd. tekh. nauk 5, 105-118, May 1954

Abstract   : Presents results of systematic study of various parameters of the
               channel stage of a spark discharge in a "rod -- rod on plane gap
               from 100 to 400 cm long. Examines speed of the leader heads at the
               moment of their approach by using electrooptical shutter. Reveals
               transitional stage from leader to main channel by means of oscillo-
               grams of current which are synchronous with photos of the leaders.
               Photographs, diagrams, graphs. Three references.

Institution :

Submitted   : April 19. 1954

GALAKTIONOV, V.I.

STEKOL'NIKOV, I.S.; GALAKTIONOV, V.I.

Electric potentials in long-span cables struck by lightning
and the selection of minimum distances between the suppor-
ting cable and the conducting wire. Izv. AN SSSR Otd. tekh.
nauk no. 9:3-24-34 S '54.   (MIRA 8:2)
         (Electric lines—Overhead)(Lightning)

RAMZES, B.Ya.; NISNEVICH, M.L.; GALAKTIONOV, V.I., inzh., retsenzent;
        BOGOSLOVSKIY, V.A., inzh., nauchn. red.; KOMAROVSKAYA, L.A.,
        tekhn. red.

        [Quality control of crushed stone, gravel, and sand for build-
        ing work] Kontrol' kachestva shchebnia, graviia i peska dlia
        stroitel'nykh rabot. Moskva, Gosstroiizdat, 1963. 191 p.
                                                    (MIRA 16:7)
          (Sand and gravel industry--Quality control)
              (Stone, Crushed)

GALAKTIONOV, V.I., inzh.

Causes of increased water requirement of mortars and concretes
containing fine sand. Bet.i zhel.-bet. 9 no.5:224 My '63.
                                                    (MIRA 16:6)
            (Mortar)   (Concrete)

BEREZIN, D.V., inzh.; GALAKTIONOV, V.I., inzh.

Influence of the forms of aggregates upon the strength of
concretes and mortars. Stroi.. mat. 9 no.7:15-17 Jl '63.

(MIRA 16:11)

BARAN, Ye.S.; GALAKTIONOV, V.I.

X-ray units for industrial flaw detection. Biul.tekh.-ekon.inform.
Gos.nauch.-issl.inst.nauch. i tekh.inform. 16 no.5:24-28'63.
(MIRA 16:7)

(Nondestructive testing)
(X-Rays—Industrial applications)

ANTIPASHIN, N.M., inzh.; GALAKTIONOV, V.I., inzh.; YESHCHENKO, T.I.,
        inzh.; YAKUNICHEV, V.I., inzh.; YAKONYUK, N.S., inzh.;
        LEMEKHOV, V.N., kand. tekhn. nauk

        Preparation of fine natural sand. Stroi. mat. 10 no.1:
        25-26 Ja'64.   (MIRA 17:5)

GERTSONOV, P.M.

\-Electrode coating. V. N. Galaktionov and P. M. Mironscher, U.S.S.R. 115,876, June 25, 1057. The electrodes for cold welding of Fe have a 2-layer coating of which the 1st layer contains graphite 40, Si-Mg 41, Fe cinders 14, and powd. Al 5%, and the 2nd layer is composed of marble 50 and fluorspar 50%.

M. Hague

KHARCHENKO, L.N.; GALAKTIONOV, Ye.A.

Helminths of murine rodents in some districts of Sverdlovsk Province.
Uch.zap.UrGU no.31:96-107 '59.   (MIRA 14:5)
(Sverdlovsk Province--Worms, Intestinal and parasitic)
(Parasites--Rodentia)

GALAKTIONOV, Yu.I.

Analyzing static stability of complex power systems. Izv.
AN Arm. SSR. Ser. tekh. nauk 18 no. 2:16-25 '65.
(MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektro-
energetiki. Submitted September 19, 1964.

AUTHORS: Galaktionov, Yu.P., Astakhov, K.V.

TITLE: Complex formation of the rare-earth elements with ethylenediamine-tetraacetic acid

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 4, 1963, 896 - 904

TEXT: The formation of complexes between Sm^{3+} and Eu^{3+}, on the one hand, and ethylenediaminetetraacetic acid (EDTA) on the other, leading to a splitting of the respective absorption spectra has been studied. The presence of EDTA in the solutions of these rare-earth elements (REE) together with a simultaneous increase in the pH of these solutions was found to result in a shift of the absorption maxima towards greater wavelengths and in a similar increase of their values. The spectra of Sm^{3+} between 402 and 406 $m\mu$ and of Eu^{3+} between 394 and 400 $m\mu$ were measured. In order to establish the composition of the complexes obtained at pH 1 to 6, the methods of isomolar series and of a series of solutions with constant concentration of the complex-forming ion and variable concentration of the complex-forming substance are used, which both show a ratio of

Card 1/3

Complex formation of the rare-earth elements S/078/63/008/004/006/013
A059/A126

REE : EDTA = 1 : 1 in the complex. Maximum optical density was found at the ratio MeY^- : H_4Y = 5 : 5 corresponding to the 1 : 2 complex at pH 6 - 10. The equations

$$K_{ac} = \frac{(D_x - d_0)(D_0 - d_0)[H^+]^n}{(D_0 - D_x)^2 \cdot c_{total} \cdot a/100},$$ (G)

where K_{ac} is the acidolytic constant, D_x the current value of optical density, d_0 the initial optical density due to the specific absorption of the REE ions (d_0 = constant), D_0 the final optical density due to the absorption of the complex at sufficiently high pH (D_0 = constant), a the percentual content of any form of the acid, and c_{total} the total concentration of the REE ion (c_{total} = constant), and

$$\log \frac{D_x - d_0}{(D_0 - D_x)^2} = K + n\ pH$$ (D)

are derived, and it is shown that the instability constant K_i can be calculated

Card 2/3

Complex formation of the rare-earth elements 8/078/63/008/004/006/013
                                                        A059/A126

from the ratio $K_1 = \frac{K_n}{K_{ac}}$, where K_n is the dissociation constant of the acid of any degree in dependence on the pH of the medium. By calculations according to equation (D), it has been shown that, at pH between 0.8 and 2.6, the complexes MeH_4Y^{3+}, MeH_3Y^{2+}, MeHY, and MeY^- are formed, i.e., n is 1, 2, 3 (for Sm^{3+}), and 2.1, 2.3 (for Eu^{3+}). Further, in the case of Sm^{3+}, MeH_4Y^{3+} and MeH_3Y^{2+} form at pH 0.8 - 2, MeHY at pH 2 - 2.4, MeY^- at pH 2.4 - 2.6, $MeHY_2^{4-}$ at pH 5 - 6.2, and MeY_2^{5-} at pH 6.2 - 6.6. With Eu^{3+}, the complex MeH_3Y^{2+} forms at pH 0.8 - 1.2, the same at pH 1.2 - 2, MeHY and MeY^- at pH 2.0 - 2.4, and MeY_2OH^{-6} at pH 7.8 - - 8.2. The acidolytic and instability constants calculated are shown in tables. G.S. Teryoshin is mentioned. There are 15 figures and 3 tables.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomo-
             nosova (Moscow Institute of Fine Chemical Technology imeni M.V.
             Lomonosov))

SUBMITTED: February 22, 1962

Card 3/3

L 10654-63.
EWT(m)/BDS--ESD-3--RM

ACCESSION NR: AP3001217   S/0078/63/008/006/1395/1399

AUTHOR: Galaktionov, Yu. P.; Astakhov, K. V.

TITLE: Spectrophotometric study of samarium (III) and europium (III) complexing
with diethylenetriaminepentaacetic acid

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 6, 1963, 1395-1399

TOPIC TAGS: trivalent Sm, Eu, spectrophotometry, acidulation constant instability
constant

ABSTRACT: The complexing of trivalent Sm and Eu in aqueous solutions with diethy-
lenetriamine pentaacetic acid was studied: the following complexes are formed:
Me sub 2 X sup + (pH 0.9-1.3); Me H X sup 1 (only for Sm); and Me X sup 2- (pH
1.3-1.9). Acidulation and instability constants were determined for the complexes.
Orig. art. has: 10 figures, 1 table, 6 equations.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomono-
sova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 30Oct62   DATE ACQD: 01Jul63   ENCL: 00

Card 1/2

GALAKTIONOV, Yu.P.; ASTAKHOV, K.V.

Spectrophotometry of the complexes of rare-earth elements
with diethylenetriaminepentaacetic acid. Zhur. neorg. khim.
8 no.11:2493-2497 N '63.

Spectrophotometry of the complexes in the system neodymium
(111) – hexamethylenediaminetetraacetic acid – acetic acid –
water. Ibid.:2498-2506   (MIRA 17:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
imeni Lomonosova.

L 16922-63   EWT(m)/BDS   ESD-3   RM

S/076/63/037/004/012/029

AUTHOR: Galaktionov, Yu. P., Lidin, R. A., Astakhov, K. V.

56
55

TITLE: Polarographic investigation of complex formation between europium and ethylenediaminetetraacetic acid

PERIODICAL: Zhurnal fizicheskoy khimii, V. 37, No. 4, 1963, 829-834

TEXT: The reaction of the complex formation of europium (III) and europium (II) with ethylenediaminetetraacetic acid in an acid medium (pH 4.0) is studied polarographically. The half-wave reduction potential of the complex Eu (III) Y^- is found to be -0.975 volts (sat. cal. el.). The non-stability constant of the complex Eu (III) Y^- ($pK^H_{Eu(III)Y^-} = 17.03$) which is obtained polarographically with the help of Schwarzenbach's method is valid for 20 degrees and an ionic strength of $\mu = 0.1$ (Li_2SO_4). The polarographic diffusion constants of hydrated europium (III) and europium (II) ions are equal respectively to $6.05 \cdot 10^{-6}$ and $8.9 \cdot 10^{-6}$ $cm^2 \cdot sec^{-1}$. The instability constant of the complex of divalent europium with ethylenediaminetetraacetic acid is determined for the first time. Its value at 20 degrees and an ionic strength of $\mu = 0.1$ (Li_2SO_4) is found to be $1.32 \cdot 10^{-12}$, and $pK_{Eu(II)Y^{2-}} = 11.88$. There are 4 tables and 1 graph. The most important English-language reference reads as follows: E. J. Wheelwright, F. H. Spedding,

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L 16922-63

S/076/63/037/004/012/029

Polarographic investigation of complex ...

G. Schwarzenbach, J. Amer. Chem. Soc., 75, 4196, 1953.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V.
               Lomonosova (Moscow Institute of Fine Chemical Technology imeni
               M. V. Lomonosov)

SUBMITTED: April 14, 1962

Card 2/2

L 14213-66   EWT(m)/EWP(j)/T/EWP(b)/EWP(t) IJP(c)   RM/JD/JG
ACC NR: AP6003643   SOURCE CODE: UR/0078/65/010/010/2386/2388

AUTHOR: Galaktionov, Yu. P.; Astakhov, K. V.; Zhirnova, N. M.   33
                                                                  B

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov
(Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Complexing of neodymium (III) with ethylenediaminetetraacetic
acid in aqueous solutions

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 10, 1965, 2386-2388

TOPIC TAGS: complex molecule, neodymium compound, spectrophotometric
analysis

ABSTRACT: Complexing between Nd^{3+} and EDTA was studied with an SF-5
spectrophotometer, and the pH was measured with an LP-58 potentiometer
with glass and calomel electrodes. From the absorption spectra of neo-
dymium perchlorate in the presence and absence of EDTA, and also from
a study of the absorption spectra of a series of solutions with a con-
stant ratio of Nd^{3+} to EDTA but changing pH values, it is concluded that
Nd^{3+} forms a complex of a single composition with EDTA. The formation
of this complex starts at pH 1.2 and ends at pH 2.4. Between pH 2.4
and pH 10, no change was observed in the optical density in the series

                              UDC: 546.657 : 541.49

Card 1/2

L 14213-66

ACC NR: AP6003643

of solutions (pH values above 10 were not used). The maximum on the
diagram of the isomolar series (at pH 3.5) shows that a complex of 1:1
composition is formed. On the basis of these data, the reaction of com-
plex formation at pH 1.2-2.4 is represented by the general equation

$$Me^{3+} + H_{6-m}Y^{2-m} = MeH_{4-m-n}Y^{3-(m+n)} + nH^+. \quad (1)$$

where n was found to have two values: $n = 2$ (pH 1.2-1.8) and $n = 3$
(pH 1.8-2.4). Considering the predominant forms of dissociation of
EDTA in those pH intervals, the complex formation is represented as
follows:

$$Me^{3+} + H_4Y = MeH_2Y^+ + 2H^+$$
$$(pH\ 1.2-1.8)\ and \quad (1a)$$
$$Me^{3+} + H_3Y^- = MeY^- + 3H^+$$
$$(pH\ 1.8-2.4). \quad (1b)$$
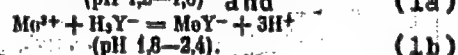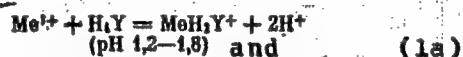
Acidolysis constants were calculated for reactions (1a) and (1b) and
dissociation constants were determined for the complexes formed by these
reactions. Orig. art. has: 4 figures, 1 table.

SUB CODE: 07/   SUBM DATE: 23Jan65/   ORIG REF: 004/   OTH REF: 003

Card 2/2

L 45576-66   EWT(m)/EWP(j)/EWP(t)/ETI   IJP(c)   JD/JG/RM

ACC NR: AP6027189   (N)   SOURCE CODE: UR/0078/66/011/008/1813/1816

AUTHOR: Galaktionov, Yu. P.; Astakhov, K. V.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Complexing of samarium (III) and europium (III) with acetic acid in aqueous solution

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 8, 1966, 1813-1816

TOPIC TAGS: samarium compound, europium compound, acetic acid

ABSTRACT: The complexing of Sm^{3+} and Eu^{3+} ions with acetic acid (HAc) in aqueous solution was studied spectrophotometrically in order to determine the composition of the acetate complexes formed at a constant Me/HAc ratio as a function of the pH. It was found that at an HAc concentration of 0.1 mole/l ($c_{Me}/c_{HAc} = 1:33$), at least three complexes are formed in the solution: $MeAc^{2+}$, $MeAc_2^+$, and $MeAc_3$ (for both samarium and europium). The limits of pH values at which the complexes predominate were found: $MeAc^{2+}$ predominates in the pH range of 3.5-3.8 (for Sm) and 3-3.7 (for Eu); $MeAc_2^+$, at 3.8-4.3 (Sm) and 3.7-3.9 (Eu); $MeAc_3$, at pH > 4.3 (for Sm) and > 3.9 (for Eu). The acidolysis and dissociation constants of these complexes were determined. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 1 Oct64/ ORIG REF: 005/ OTH REF: 005

Card 1/1   UDC: 547.292'165.9-386+547.292'166.1-386

AT0001620

AUTHOR: Bayatyan, G. L.; Galaktionov, Yu. V.; Zel'dovich, O. Ya.; Landsberg, L. G.

SOURCE CODE: UR/3138/65/000/373/0001/0016

ORG: [Bayatyan] Institute of Physics GKIAE, Yerevan (Institut fiziki GKIAE, Yerevan)

TITLE: Large scintillation counters and counters for operation in magnetic fields

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 373, 1965. Bol'shiye stsintillyatsionnyye schetchiki i schetchiki dlya raboty v magnitnykh polyakh, 1-16

TOPIC TAGS: scintillation counter, photomultiplier, STRONG magnetic field, light wave

ABSTRACT: Large scintillating counters and long light guides are essential for work-
ing in the area of strong magnetic fields. The authors have tested a variety of such
counters in their experiments. The counters differed in shape and size of the
crystals and length of light guides. In the case of each counter the authors de-
termined the dependence of its effectiveness on the voltage of the photomultiplier
and, in some cases, on the area of passage of particles through the scintillator.
Measurements were conducted by studying cosmic rays   and   a beam generated
by the ITEF accelerator under high load conditions. The signals from the counters
entered the high-speed coincidence circuits. The resolution period of the circuits

Card 1/2

ACC NR: AT6001620

was 10-15 n sec. From the outputs of these circuits the standard signals proceeded to a slow coincidence circuit, which had a resolution of 10^{-7} sec. and an effectiveness of 100%. The experiments were conducted with large dimension counters, counters operating in strong magnetic fields, and counters with magnetic field compensation. Measurements of the amplitude spectrum of signals from the multipliers, taken with the magnetic field turned on and off, have shown that the activation of the magnetic field results only in an insignificant shift of the spectrum toward lower amplitudes (by 15-20%). The authors thank V. A. Lyubimova for her useful evaluations and Yu. V. Devyatikh, E. A. Strel'nikov, and V. D. Tarasova for their participation in the measurements. Orig. art. has: 1 formula, 2 tables, and 7 figures.

SUB CODE: 18 / SUBM DATE: 26Jul65/ ORIG REF: 003/ OTH REF: 000

Card 2/2

85706

24.6900 (1138,1191, 1559)

S/056/60/038/006/049/049/XX
B006/B070

AUTHORS: Alikhanov, A. I., Galaktionov, Yu. V., Gorodkov, Yu. V.,
              Yeliseyev, G. P., Lyubimov, V. A.

TITLE: Measurement of the Chirality of the μ-Meson [?]

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
              Vol. 38, No. 6, pp. 1918 - 1920

TEXT: The muon chirality was measured by the authors of the present
"Letter to the Editor" by a method described in Ref.1. The method is
based on the measurement of the scattering cross sections of polarized
muons from polarized electrons. This cross section depends on the mutual
orientation of the spins of the colliding particles. An independent mea-
surement of the number of δ showers was made, the showers being released
by cosmic muons in magnetized iron and consisting of two or more par-
ticles. The experimental arrangement is shown in a Fig. and described in
the text. About 500 muons pass through the apparatus every minute, one or
two of these produce showers with m≧3. Up to now 116,000 showers with
m≧3 have been recorded. The energies of the shower-producing muons were

Card 1/3

85706

Measurement of the Chirality of the μ-Meson   S/056/60/038/006/049/049/XX
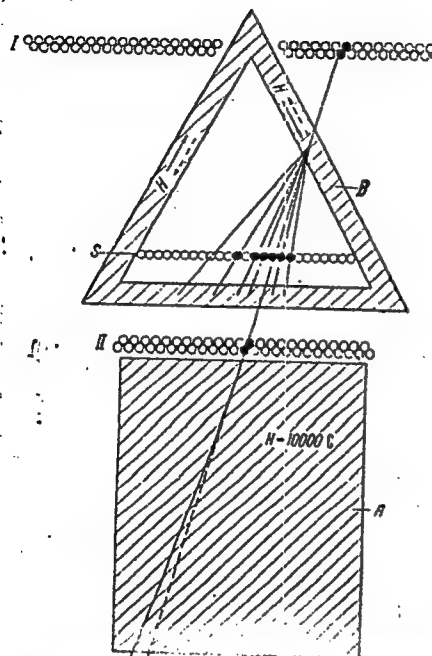B006/B070

between 3 and 6.5 Bev. The following results were obtained from the experiments: For μ^+ mesons, the difference in the number of showers for two different directions of the current in the winding of the triangle (Fig.) gives the effect $s_+ = -0.37 \pm 0.41$; $(s = (N_+ - N_-)/(N_+ + N_-))$; for μ^- mesons, $s_- = +0.82 \pm 0.42$. For both signs of the charges of the muon the effect is given by $s_\pm = 0.58 \pm 0.29$. The theoretical value for a 50% polarization of the muon is 0.6. The sign of the effect corresponds to weak V-A interaction (according to which the spin of the muon is directed opposite to its momentum), that is, to a left-hand chirality of the μ^+ meson. The probability for the effect to be zero or negative is $2 \cdot 10^{-2}$. The experiments are being continued to improve the statistical accuracy. There are 1 figure and 2 Soviet references.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii
               nauk SSSR (Institute of Theoretical and Experimental
               Physics of the Academy of Sciences USSR)

SUBMITTED: April 25, 1960

Card 2/3

85706

S/056/60/038/006/049/049/XX
B006/B070

Legend to the Fig.:
I, II, III - hodoscope counters
for the determination of the
muon trajectories; S - counter
series for shower recording;
A - iron yoke of the permanent
magnet for the determination of
the sign of the muons from their
deviation in the magnetic field;
B - iron core of the electro-
magnet with triangular cross
section in which the muons
produce showers; the field in-
duced in B attains 14,400 gauss.

Card 3/3

L 45992-66   EWT(1)/EWT(m)/T   IJP(c)   WW

ACC NR: AP6030128   SOURCE CODE: UR/0120/66/000/004/0056/0059

AUTHOR: Bayatyan, G. L.; Galaktionov, Yu. V.; Zel'dovich, O. Ya.; Landsberg, L. G.

36
32
B

ORG: [Bayatyan] Institute of Physics GKAE, Yerevan (Institut fiziki GKAE);
Institute of Theoretical and Experimental Physics GKAE, Moscow (Institut
teoreticheskoy i eksperimental'noy fiziki GKAE)

TITLE: Large scintillation counters and counters intended for operation in magnetic
fields

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 56-59

TOPIC TAGS: scintillation counter, particle counter

ABSTRACT: The results are reported of testing (a) large (up to 700 x 350 x 15 mm)
scintillation counters with one photomultiplier, and (b) long-lightguide counters
capable of operating in strong magnetic fields. The large counters with 190--250-mm
lightpipes were illuminated by a gamma beam from Cs^{137}; the irregularity of light
collection was found to be 40% or less. The effect of the scintillation-crystal
shape on the efficiency of particle recording was also explored. In the second type
of counters, the ambient magnetic field was eliminated by either a compensating
magnetic field derived from a special solenoid or by using lightguides long enough
(1500--1800 mm) for locating the photomultiplier in a (50--100-oe) region permitting

UDC: 539.1.074.3

Card 1/2

L 45992-66

ACC NR: AP6030128   4

application of magnetostatic shields. In one case of magnetic compensation, the
counter operated with an efficiency of 0.997. "In conclusion, the authors wish to
thank V. A. Lyubimov for useful discussions and graduate students Yu. V. Devyatykh,
Ye. A. Strel'nikov, and V. D. Tarasov for their part in measurements." Orig. art.
has: 4 figures, 1 formula, and 2 tables.   [03]

SUB CODE: /8 / SUBM DATE: 12Aug65 / ORIG REF: 004 / ATD PRESS: 5087

Card 2/2   pb

L 65207-65   EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5021735   UR/0386/65/002/002/0090/0094

AUTHOR: Alikhanov, A. I.; Bayatyan, G. L.; Brakhman, E. V.; Galaktionov, Yu. V.; Yeliseyev, G. P.; Yech, F. A.; Zel'dovich, O. Ya.; Landsberg, L. G.; Lyubimov, V. A.; Sidorov, I. V.

TITLE: Elastic backward scattering of π-mesons by neutrons in the 1.4-4.0 Bev/s pulse range

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 2, 1965, 90-94

TOPIC TAGS: pi meson, particle scatter, neutron scattering

ABSTRACT: The elastic backward scattering reaction $\pi^- + n \to \pi^- + n$ is studied in the 1.38-4.05 Bev/s pulse range. 1700 events of this reaction were selected with a pion scattering angle of >90°. The solid angles for these events were measured (accuracy of measurement in the horizontal plane was 1° and in the vertical plane—5°). The results are given in graphic and tabular form. Orig. art. has: 3 figures, 1 table.

ASSOCIATION: none

Card 1/2

L 65207-65

ACCESSION NR: AP5021735

SUBMITTED: 02Jun65   ENCL: 00   SUB CODE: NP

NO REF SOV: 000   OTHER: 000

Card 2/2

L 14439-66   EWT(m)/T   IJP(c)

ACC NR: AT6002501   SOURCE CODE: UR/3138/65/000/372/0001/0008

AUTHOR: Galaktionov, Yu. V.; Landsberg, L. G.; Lyubimov, V. A.

ORG: none

TITLE: Efficiency of scintillation counters in registration of neutrons with a momentum of several bev/c

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 372, 1965. Issledovaniye effektivnosti registratsii neytronov s impul'som neskol'ko Bev/c stsintillyatsionnymi schetchikami, 1-8

TOPIC TAGS: scintillation counter, neutron detector, pion scattering, neutron scattering

ABSTRACT: The authors studied the efficiency of scintillation counters for registration of neutrons. The neutrons were produced by pion-neutron scattering at angles of 120-180° from a target of heavy or ordinary water located within a cylindrical spark chamber. The counter signal produced by forward scattered neutrons was

Card 1/2

L 14439-66
ACC NR: AT6002501

4

recorded on an oscillograph while the chamber was simultaneously photographed. The efficiency of neutron registration was determined by using the photographs to sort out backward scattering events. Two types of scintillation counters were studied. In the first type, a block of scintillating plastic was used for registration of neutrons. The scintillator had a thickness of 280 mm on the path of the neutron. Neutrons were recorded at angles of $\pm 12°$ from the axis of the counter. The efficiency of this type of counter was found to be 0.58 ± 0.07 for a neutron momentum of 2.1 bev using data for a heavy water target. The second type of neutron recorder was made up of three thin (15 mm) scintillation counters with iron plates 6 cm thick in front of each of them. A separate photomultiplier was used for scanning each scintillation counter. This type of counter has an efficiency of 0.51 ± 0.06 for a neutron momentum of 3.0 bev/c. The authors are grateful to G. A. Bayatyan, O. Ya. Zel'dovich and N. N. Luzhetskiy for assistance with the measurements. We are also grateful to M. Ya. Balats for discussing a number of ideas in setting up the experiment. Orig. art. has: 1 figure, 3 tables.

SUB CODE: 18/   SUBM DATE: 21Jul65/   ORIG REF: 001/   OTH REF: 000

Card 2/2

L 30993-66   EWT(m)/T

ACC NR: AT6002498   SOURCE CODE: UR/3138/65/000/350/001/0012

AUTHOR: Alikhanov, A. I.; Bayatyan, G. L.; Brakhman, E. V.; Eliseev, G. P.;
Galaktionov, Yu. V.; Landsberg, L. G.; Lyubimov, V. A.; Sidorov, L. V.; Zeldovich,
O. Ya.; Yetch, F. A.

ORG: none

TITLE: π⁻ - meson-neutron elastic backward scattering at 1.4-4.0 bev/c

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut
teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 350, 1965. Pi sup minus-
meson-neutron elastic backward scattering at 1.4-4.0 Bev/c, 1-12

TOPIC TAGS: pion scattering, neutron scattering, elastic scattering, scattering
cross section, angular distribution, spark chamber

ABSTRACT: The authors study the elastic backward scattering reaction
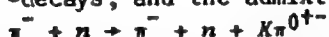
$$\pi^- + n \rightarrow \pi^- + n$$

in the 1.38-4.05 bev/c range. A spark chamber was used with photographic and neu-
tron counter registration. The experimental installation was highly efficient in

Card 1/2

Ĺ 30993-66
ACC NR: AT6002498 O

recording γ-quantum from π^0-decays, and the admixture of inelastic events
$$\pi^- + n \to \pi^- + n + K\pi^{0+-}$$
in the 1700 cases of the elastic backward scattering reactions which were selected
for study was no more than 2%. The solid angles for these cases were measured and
the absolute cross sections were determined. Tables are given showing the cross
section $\bar{\sigma}_n^- = \bar{\sigma}_{D^2O} - \bar{\sigma}_{H_2O}$ and $R = \bar{\sigma}_{H_2O}/\bar{\sigma}_{D_2O}$ as functions of energy. The total error

in calculation of these cross sections due to necessary corrections for pion-pion
and pion-neutron scattering in the ambient medium, electronic efficiency, beam com-
position and the shielding effect of nucleons in the deuterium was 25%. Data for
σ_n and $<\sigma_n>$ as functions of energy show some irregularity in the 2-3 bev region

which may be due to resonance. Measurements of angular distribution for pion-neu-
tron scattering show a minimum in the 162-180° region. The momentum transfer func-
tion is used as a basis for calculating the width of this minimum. A comparison of
the experimental data obtained in this paper with those in the literature shows
that the cross section $d\sigma/d\Omega$ is approximately inversely proportional to energy when
the momentum transfer is constant. Orig. art. has: 4 figures, 2 tables.

SUB CODE: 20/   SUBM DATE: 00/   ORIG REF: 000/   OTH REF: 009

Card 2/2

CHEKALOV, K.I., kand. sel'skokhoz. nauk; GALAKTIONOVA, A.A.

Dosage and methods for the admixture of mineral components in the commercial production of peat-mineral-ammonia ferti- lizers. Trudy VNIITP no.18:38-54 '61.   (MIRA 17:1)

COUNTRY   : USSR   M
CATEGORY   : Cultivated Plants.
                    Grains. Legumes. Tropical Cereals.
ABS. JOUR.   : RZhBiol., No. 3, 1959, No. 10917

AUTHOR   : Galaktionova, A. M.
INST.   : Scientific Research Agricultural Institute of the Southeast
TITLE   : On the Selection of the Varieties and Hybrids of Corn.

ORIG. PUB.   : S. kh. Povolzh'ya, 1958, No. 4, 47-49.

ABSTRACT   : Results of the trial (1955 1956) of corn varieties and hy-
                    brids of local and southern origin on the fields of the
                    Scientific Research Agricultural Institute of the South-
                    east, Penzenskaya, Kuybyshevskaya agricultural experiment-
                    al station, and Kinel'skaya and Kamyshinskaya breeding
                    stations. With respect to the yield of dry weight corn,
                    the first places in the northern and northwestern oblasts
                    were taken by the fast-maturing varieties: Voronezhskaya
                    76 and hybrid Bezenchukskiy (32-49 centners/ha). In the
                    central oblasts of the zone, high yields (39 centners/ha)
                    were obtained from the mid-season and late maturing vari-

CARD: 1/2

CATEGORY   :

ABS. JOUR.   : RZhBiol., No.   1959, No. 10917

AUTHOR   :
INST.   :
TITLE   :

ORIG. PUB.   :

ABSTRACT   : eties and hybrids: Bukovinskiy 1, VIR 42, Minnesota 13;
                    in the more southerly regions - from Krasnodarskaya 1/49.
                    -- A. F. Khlystova

CARD: 2/2

GALAKTIONOVA, A. M.

How to obtain high yields of millet   Moskva, Gos. izd-vo selkhoz lit-ry, 1954. 30 p.

GALAKTIONOVA, A.M.

3534. GALAKTIONOVA, A.M. Kukuruza V Povolzh'e. Saratov, Kn 12d., 1954
32s. s ill. 20sm. 2,000eks. 40k--(54-57334) P 633.15 (47.8)

SO: Knizhnaya Letopis', Vol. 3, 1955

SHPICHINETSKIY, Ye.S.; ROGEL'BERG, I.L.; LUZENBERG, A.A.; GOLOMOLZINA, Yu.A.
    AGAFONOV, A.K.; Prinimali uchastiye: MIZONOV, V.M.; GALAKTIONOVA,
    G.A.; GAVRILOVA, N.G.; SAMSONOV, I.P.; KOPEYKA, E.I.; GLEBOV, V.P.

    Investigating th: darkening of nickel strips during annealing.
    Trudy Giprotsvetmetobrabotka no.20:125-135 '61.   (MIRA 15:2)
        (Nickel--Heat treatment)   (Annealing of metals)

RAZENKOVA, N.I.; GALAKTIONOVA, G.F.

Concerning the form of gallium occurrence in the oxidation zone
of sulfide deposits. Geokhimiia no.1:90-92 '62.   (MIRA 15:2)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh
elementov AN SSSR, Moskva.
                         (Gallium)(Sulfides)

RAZENKOVA, N.I.; GALAKTIONOVA, G.F.

Experimental study of the mode of occurrence of thellium in the oxidation zone of sulfide deposits. Trudy IMGRE no.18:5-19 '63.
(MIRA 16:12)

ACC NR: AP7005344   SOURCE CODE: UR/0181/67/009/001/0179/0183

AUTHOR: Rubinshteyn, B. Ye.; Galaktionova, G. M.

ORG: none

TITLE: Ferromagnetic resonance in single crystals of bismuth-calcium iron-vanadium garnet

SOURCE: Fizika tverdogo tela, v. 9, no. 1, 1967, 179-183

TOPIC TAGS: garnet, ferrite, ferromagnetic resonance, line width, line broadening, magnetic anisotropy, crystal lattice structure

ABSTRACT: To check on the results previously obtained by one of the authors (Rubinshteyn, FTT v. 6, 3538, 1964) that when the Fe^{3+} ions are replaced by V^{5+} ions in a garnet their anisotropy constant decreases and the single-ion model is applicable, the authors measured the ferromagnetic-resonance line width, the effective g-factor, and the anisotropy constant for the garnet $Bi_{3-2x}Ca_{2x}Fe_{5-x}V_xO_{12}$ with $1.13 \leq x \leq 1.46$. The single crystal growing (by A. G. Titova and R. A. Petrov) is described elsewhere (Izv. AN SSSR, neorganicheskiye materialy, in press). The value of x, determined from the lattice parameter, was 1.13, 1.22, 1.26, 1.35, 1.37, and 1.46. The measurements were made on polished spheres of ~0.5 mm diameter in a TE_{105} cavity at 9228 MHz. The results are presented in the form of plots of the line width and the anisotropic constants against the composition and of the effective g-factor and of the anisotropy constant against the temperature. The anisotropy is shown to exhibit a weak depen-

Card 1/2

ACC NR: AP7005344

dence on the composition, and the reason for this is briefly explained. The line
width increases with decreasing x, as a result of the fact that the garnet approaches
the compensation point. The g-factor decreases little on approaching the compensa-
tion point. The authors also calculate the anisotropy constant, assuming a single-
ion model, and find good agreement between the calculated and the experimental values.
The authors thank A. G. Gurevich for a discussion of the results. Orig. art. has:
4 figures, 4 formulas, and 1 table.

SUB CODE: 20/   SUBM DATE: 14 Jun66/   ORIG REF: 002/   OTH REF: 009

2/2

OZOLIN, L.T., GALAKTIONOVA, K.N.

Ways of increasing iron recovery and improving the quality of
concentrates at the Olenogorsk Plant. Obog. rud 3 no.2:17-23
'58.   (MIRA 11:11)
    (Olenogorsk--Ore dressing) (Iron ores)

SHORSHER, I.N.; GALAKTIONOVA, K.N.

Flotation of iron ores with cation collectors. Obog.rud
3 no.5:3-9 '58.   (MIRA 12:5)
                    (Flotation)   (Iron ores)

TITKOV, N.P.; BOGDANOVA, Z.S.; GALAKTIONOVA, K.N.; KUROVA, M.D.; LAKOTA,
B.M.; OZOLIN, L.T.; Prinimali uchastiye: CHRKOVA, K.I.; ASHITKOV,
Yu.R.; SMIRNOV; Ye.A.; PLATUNOV, A.A.; GALICH, V.M.; PATKOVSKAYA,
N.A.; VLODAVSKIY, I.Kh.; GORLOVSKIY, S.I.

Outlook for introducing the flotation of ferrous metal ores.
Gor. zhur. no.9:57-62 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
mekhanicheskoy obrabotki poleznykh iskopayemykh, Leningrad.
(Flotation) (Iron ores) (Manganese ores)

PROCESSES AND PROPERTIES INDEX

Role of Hydrogen in the Process of Formation of Flakes. (In Russian) N. A. Galaktionova. *Izvestiya Akademii Nauk SSSR* (Bulletin of the Academy of Sciences of the USSR), Section of Technical Sciences, Nov. 1949, p. 1666-1674.

Describes a series of experiments made to clarify the status of H_2 in steel and its role in the formation of flakes. Results indicate that enrichment of the metal with H_2 essentially changes its characteristics: it acquires a silver-white color and becomes resistant to corrosion under normal conditions. Method of investigation, using a high-frequency vacuum furnace, is described. Data are tabulated and charted. 11 ref.

Cen Sci Res Inst of Ferrous Metal, Min of Metallurgical Ind. USSR

METALLURGICAL LITERATURE CLASSIFICATION

GALAKTIONOVA, N.A.

USSR/ Chemistry - Physical chemistry

Card 1/1   Pub. 22 - 19/40

Authors   : Galaktionova, N.A.

Title   : Effect of hydrogen on the properties of alloys

Periodical : Dok. AN SSSR 99/3, 411-413, Nov 21, 1954

Abstract   : The possibility of absorbing the hydrogen by cast Fe-Ni-Al alloys, and the
             effect of the hydrogen on the properties of the metal, were investigated.
             Analyses, made by the method of hot extraction in vacuum, showed that cast
             magnetic-solid alloys in solid state are characterized by considerable
             fluctuations in the hydrogen content and that the amounts of H, determined
             by the absolute value, exceed the normally defined H-amounts in steel. An
             analysis of a greater number of samples showed that the Fe-Ni-Al alloy dis-
             played a great inclination toward H-absorption. The effect of H on the
             lattice of the investigated alloy was found to be analogous to its effect
             on the lattice of alpha-iron of alloyed steel. Four USSR references (1946 -
             1949). Table; graphs.

Institution : ....
Presented by : Academician N.T. Gudtsov, May 5, 1954

GALAKTIONOVA, N.A.

USSR/Solid State Physics - Systems, E-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34667

Author: Galaktionova, N. A., Nikishova, F. B.

Institution: None

Title: Effect of Titanium on the Structure of Iron-Cobalt-Aluminum Alloys

Original Periodical: Fiz. metallov i metallovedeniye, 1955, 1, No 3, 506-509

Abstract: An investigation was made of the structure of the alnico-5 type alloys with addition of Ti $(0.8 - 5\%)$ after hardening (cooling from a temperature of $1,300^\circ$ in a magnetic field at the critical speed), in high-coercive state, and after tempering for an hour at 850°. The investigation methods used were metallography, electron diffraction, X-rays, dilatometry, and the change in the magnetic properties. The added Ti contributes to a breakdown of the β_{12} phase, increases the amount of the iron-rich β phase, and lowers the degree of dispersion of the latter. In the absence of Ti, specimens in the high-coercivity state display a broadening of the lines in the X-ray diffraction patterns. In the 5% Ti alloy one observes a resolution of the doublet, a considerable increase in the period of the β phase lattice, and no change in the lattice period of the β_2 phase. A treatment of the obtained experimental results is given.

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Galaktionova Nadezhda Andreyevna

Vodorod v metallakh (Hydrogen in Metals) Moscow, Metallurgizdat,
   1959. 255 p. Errata slip inserted. 3,200 copies printed.

Reviewer: V. I. Yavoyskiy, Doctor of Technical Sciences, Professor;
   Ed.: M. A. Maurakh; Ed. of Publishing House: Ye. V. Dokukina;
   Tech. Ed.: A. I. Karasev.

PURPOSE: This book is intended for technical personnel in industrial
   plants and scientific research institutes. It may also be useful
   to students taking advanced courses in metallurgy at schools of
   higher education.

COVERAGE: The author discusses the interaction of hydrogen with
   metals and certain nonmetals, including adsorption,diffusion,
   solution, and chemical reaction. Attention is also given to
   the effect of hydrogen on the electrical, magnetic, mechanical,
   and corrosion properties of metals and alloys and on the develop-
   ment of specific defects. No personalities are mentioned. There
   are 499 references: 97 Soviet, 250 English, 118 German, 21 French
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5 Japanese, 2 Dutch, 2 Swiss, 1 Swedish, 1 Czech, 1 Italian, and
1 Chinese.

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